5

## ABSTRACT OF THE DISCLOSURE

The present invention relates to a nucleic acid segment having a coding region segment encoding enzymatically active Streptococcus equisimilis hyaluronate synthase (seHAS), and to the use of this nucleic acid segment in the preparation of recombinant cells which produce hyaluronate synthase and its hyaluronic acid product. Hyaluronate is also known as hyaluronic acid or hyaluronan.